

# Aortic Stenosis Questions

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**Boston, MA**



## Question 1

- 32 y/o female
- In the USA for 11 months
- 16 weeks pregnant
- A murmur noted on OB exam

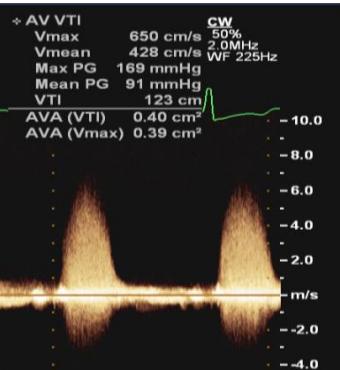
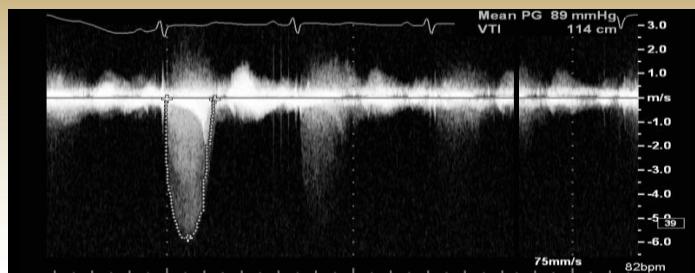


# Question 1



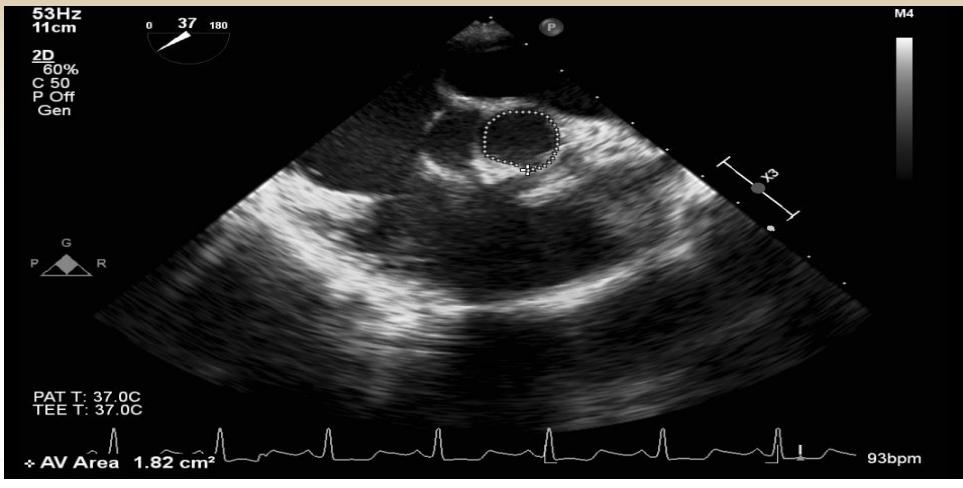
OU  
WB

# Question 4



OU  
WB

# Question 1



OU  
WB

AVA Planimetry: 1.8 cm<sup>2</sup>

# Question 1

- A. The patient has a high coefficient of orifice contraction
- B. The patient has a congenital aortic stenosis
- C. The patient has a central aortic jet
- D. The patient will have echo and catheter discordance of gradients

OU  
WB

# Answer to Question 1

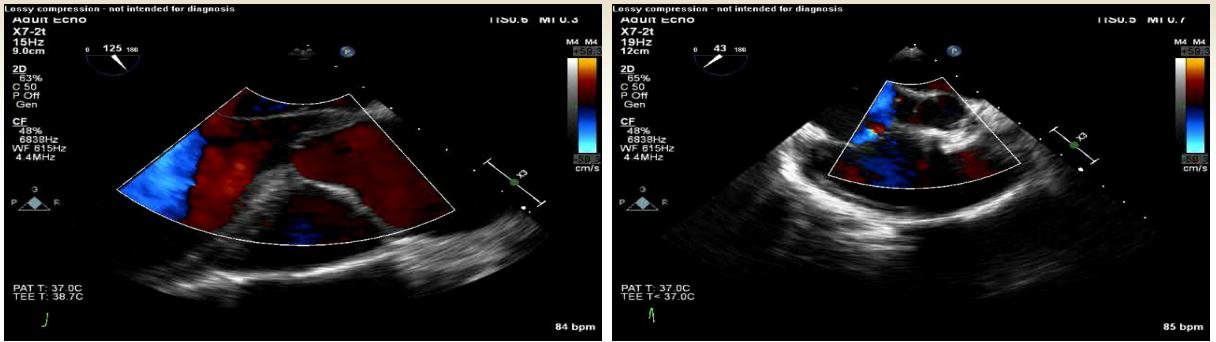
B. The patient has congenital aortic stenosis



## Question 1

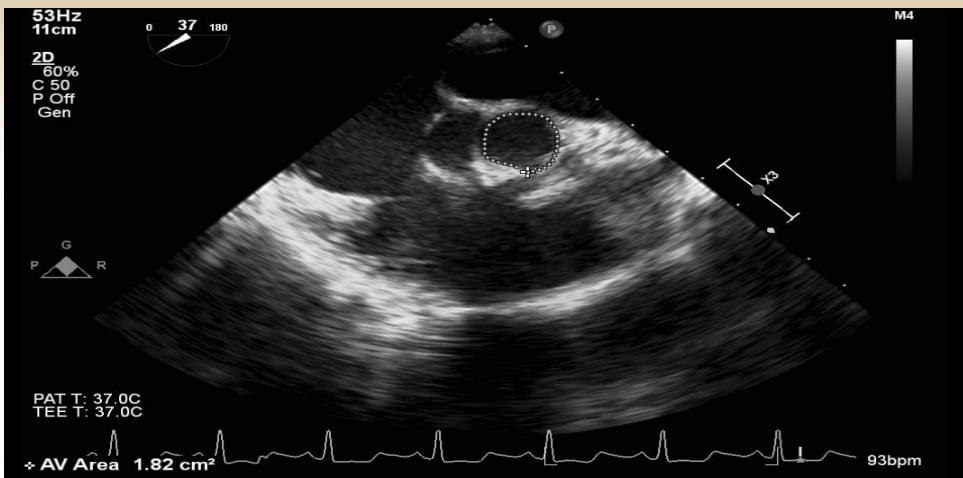


# Question 1



OU  
WB

# Question 4



OU  
WB

AVA Planimetry: 1.8 cm<sup>2</sup>

# Severe Aortic Stenosis?

**Mean AV Gradient**  
**89-91 mmHg**

**Planimetry**  
**1.8 cm<sup>2</sup>**

**Echo Valve Area**  
**0.4 cm<sup>2</sup>**



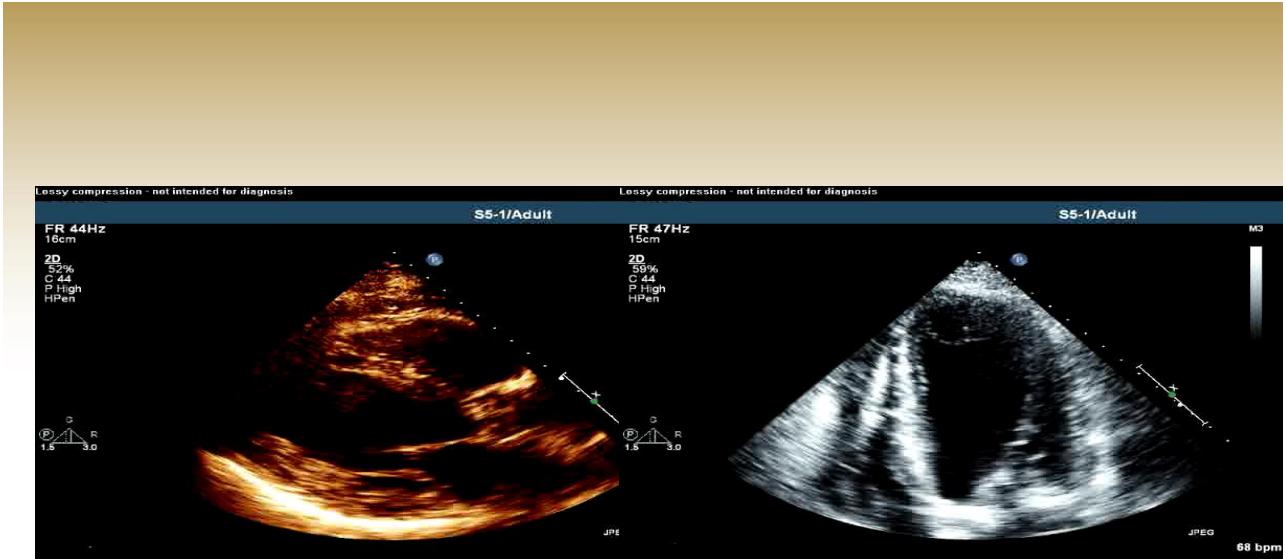
## Question 1

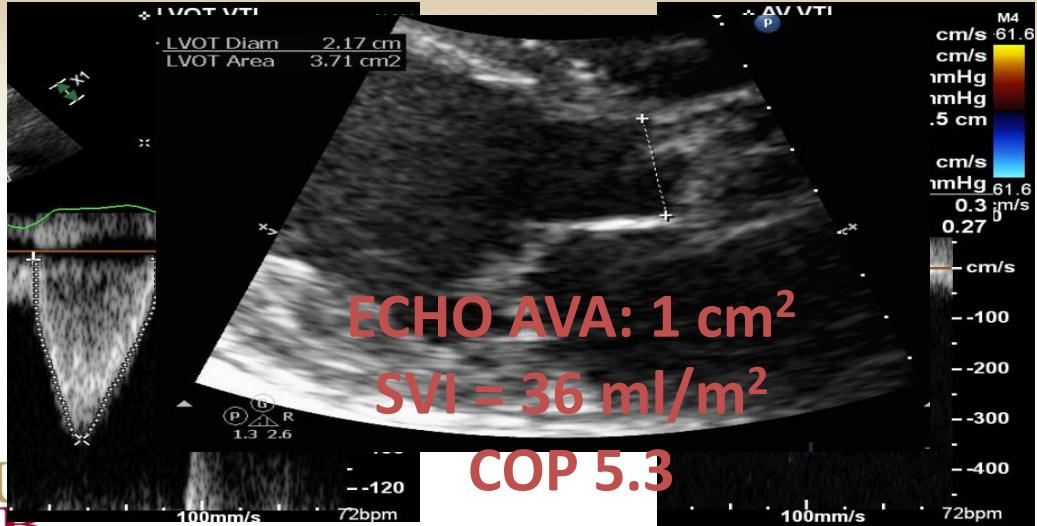
- Patient was asymptomatic
- Delivered at 38 weeks with elective CS
- Aorta at 4.2 cm by CTA
- Continues to be asymptomatic
- Meets criteria for Very Severe AS by all guidelines



# Question 2

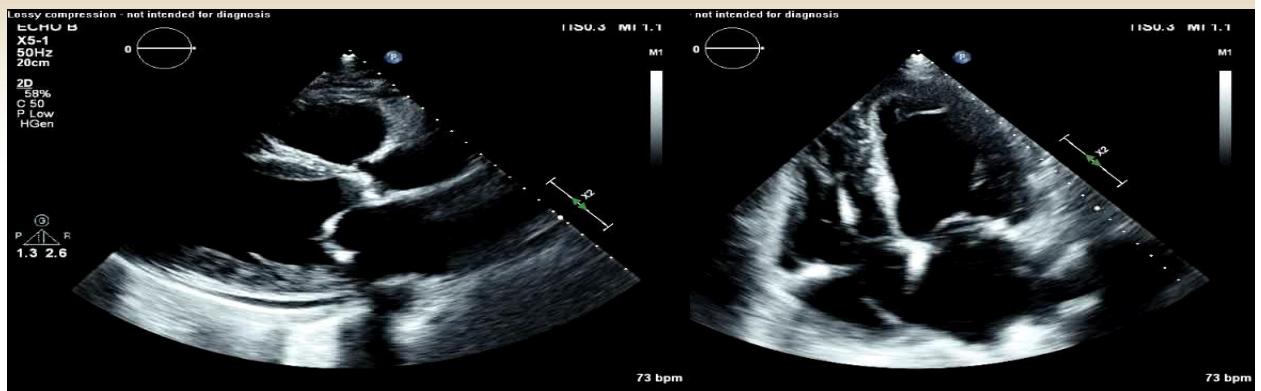
- 50 y/o female
- ESRD on HD (AV fistula)
- Recurrent heart failure x 4 months
- Negative stress test



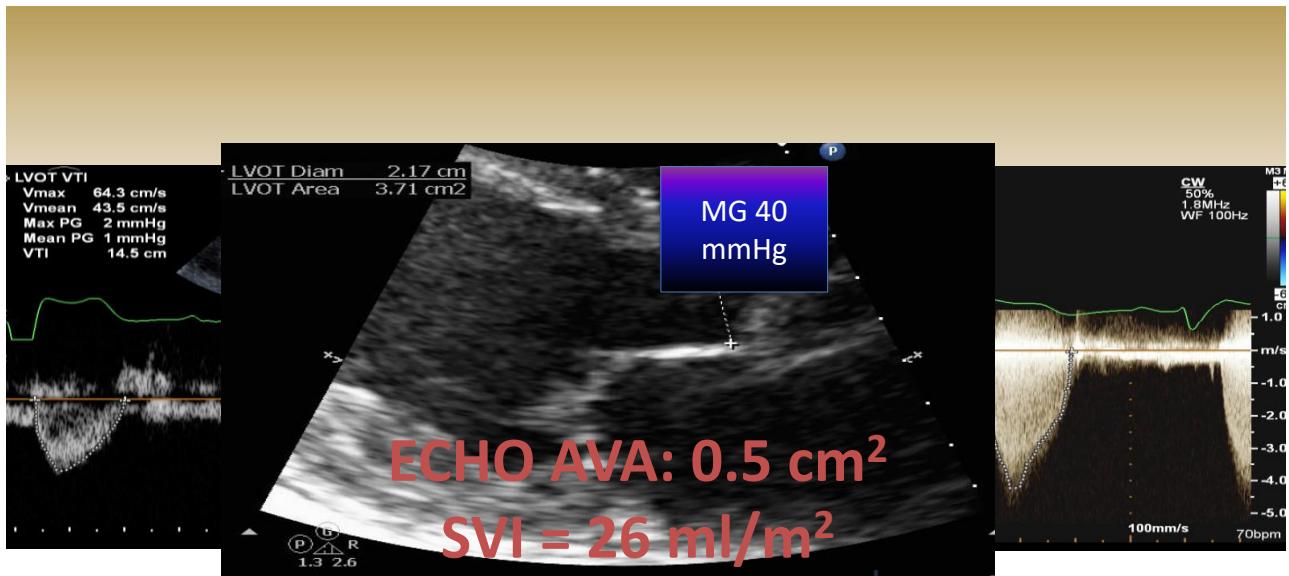


OU  
WB

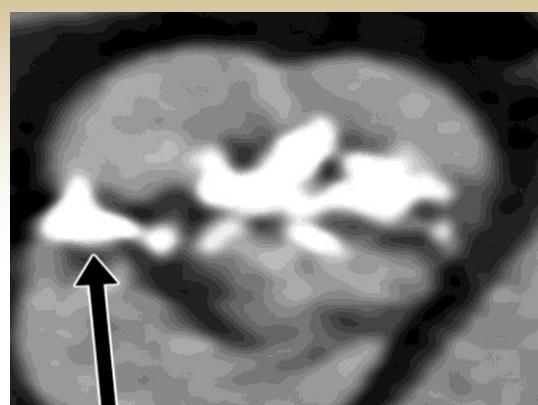
Six Months Later



OU  
WB

OU  
WB

COP 3.6



AV Calcium Score  
3500 AU

OU  
WB

## Question 2

- A. The patient has severe AS
- B. The patient needs a dobutamine echocardiogram to determine severity
- C. A bioprosthetic valve is the SAVR of choice
- D. The patient will have similar invasive and non invasive measurements



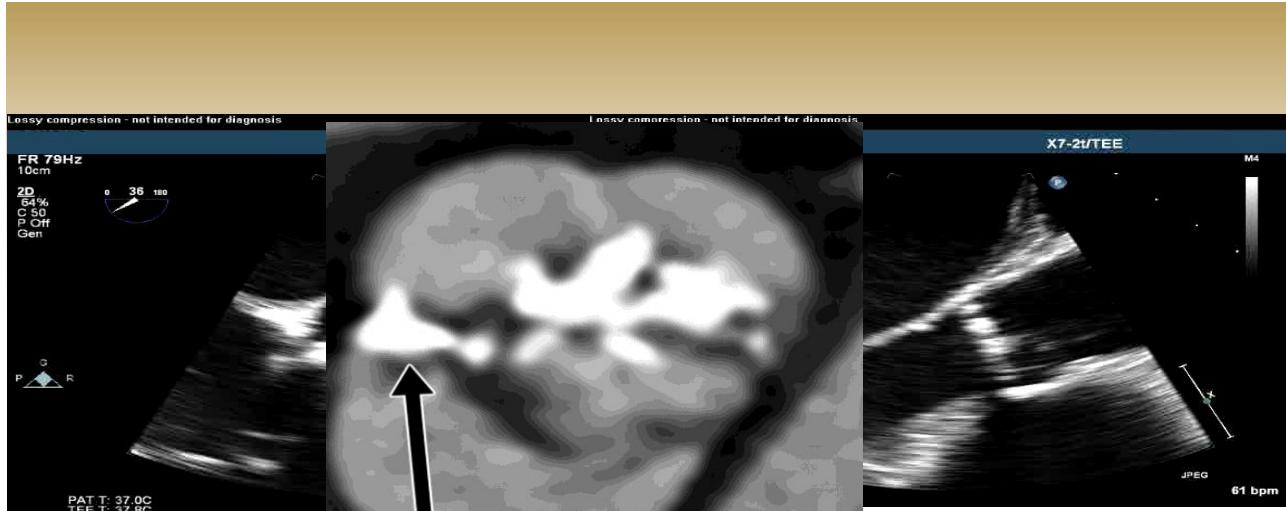
## Answer to Question 2

- A. The patient has severe aortic stenosis



## Question 2

- Patient was symptomatic
- Was sent home due to “moderate” AS by Cath
- No CAD noted
- Returned within 1 week for recurrent CHF despite compliance with HD
- Scheduled for TEE/CT



**Cath: Mild CAD**  
**Cardiac output: 8.4 liters/minute**  
 **$P_{mean} = 32 \text{ mmHg}$ , AVA  $1.4 \text{ cm}^2$**



# Severe Aortic Stenosis?

Mean AV Gradient  
**32-36 mmHg**

Valve Area  
Echo: **0.6 cm<sup>2</sup>**  
**Cath: 1.4 cm<sup>2</sup>**

AV Calcium Score  
**3500 AU**

